UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,363	10/21/2003	Attila Simofi-Ilyes	2003P15030US	4230

7590 11/12/2004

Elsa Keller
Intellectual Property Department
SIEMENS CORPORATION
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER	
MULLINS, BURTON S	

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/690,363	SIMOFI-ILYES ET AL.	
	Examiner	Art Unit	
	Burton S. Mullins	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-15 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) ✓
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 21 October 2003 has been considered by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 5-6, 8, 10-11, 13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Campbell et al. (US 2002/0117931). Campbell teaches a commutator for an electric motor (Fig.4), the commutator comprising: a body 40 having opposing ends (Fig.4), commutator bars (inherent to commutator body 40) attached to a periphery of the body, and oil throw and recovery structure 80 integral with the body and disposed at one of the ends of the body (paragraphs 32-33), the oil throw and recovery structure flaring outwardly from the one end of the body and defining a continuously curved, annular surface 82 terminating in an annular tip (Fig.4), the commutator being constructed and arranged to be mounted to a shaft 24 with the oil throw and recovery structure being adjacent to a bearing 78 (Fig.4), the oil throw and recovery structure being constructed and arranged to deflect oil, moving from the bearing

and contacting the annular surface, in a direction away from the one end of the body with the annular tip directing the oil back to the bearing (paragraphs 32-33). Regarding claims 6 and 11, note brushes 42/44, bearing 78 and associated bearing retainer 30 with a generally V-shaped channel (paragraphs 30-31; Figs.2-4).

The examiner notes that the term "integral" has taken to mean "composed of constituent parts making a whole; composite; integrated" as defined in Webster's New International Dictionary (Second Edition). Therefore, although the commutator body and oil throw comprise several parts, they are rigidly secured together as a single unit and are "integral", i.e., the constituent parts are so combined as to constitute a unitary whole.

Regarding claims 3, 8 and 13, note hooks at one end in Fig.2.

Regarding claims 5, 10 and 15, this feature is inherent to commutators.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark (US 3,129,350) in view of Campbell et al. (US 2002/0117931). Clark teaches a commutator for an electric motor, the commutator comprising: a body (core) 10 having opposing ends (Fig.3), commutator bars 44 attached to a periphery of the body (Fig.4), and oil throw and recovery

structure 20 integral with the body and disposed at one of the ends of the body (Figs.2-3&5), the commutator being constructed and arranged to be mounted to a shaft 46 with the oil throw and recovery structure being adjacent to a bearing 50 (Fig.6), the oil throw and recovery structure 20 being constructed and arranged to deflect oil, moving from the bearing and contacting the annular surface, in a direction away from the one end of the body with the annular tip directing the oil back to the bearing (c.2, lines 40-61). Regarding claims 6 and 11, note brushes (not numbered, Fig.6) and bearing retainer 52 with generally V-shaped channel structure (Fig.6).

Clark's oil throw and recovery structure 20 "flares outwardly" (c.1, line 35) but does not specifically define "a continuously curved, annular surface terminating in an annular tip".

Campbell teaches a motor with a commutator 40 and an oil throw and recovery structure 80 flaring outwardly from the one end of the body and defining a continuously curved, annular surface 82 terminating in an annular tip (Fig.4), the commutator being constructed and arranged to be mounted to a shaft 24 with the oil throw and recovery structure being adjacent to a bearing 78 (Fig.4). The flared and continuously curved, annular surface 82 of the oil throw and recovery structure 80 enables oil excreted from the bearing 78 to be thrown or re-circulated back toward the bearing (paragraph 32).

It would have been obvious to modify the shape of Clark's flared oil throw and recovery structure 20 and provide a continuously curved, annular surface per Campbell's oil throw and recovery structure 80 since this would have been desirable enable oil excreted from the bearing to be thrown or re-circulated back toward the bearing.

Regarding claims 2, 7 and 12 Clark's oil throw and recovery structure 20 is integrally molded with the core 10 to eliminate the need for a separate ring (c.1, lines 21-25 & 41-43).

Regarding claims 3, 8 and 13 note hooks (not numbered) in both Clark (Fig.1) and Campbell (Fig.2).

Regarding claims 4, 9 and 14, the diameter of the annular surface in Clark is less than that of the commutator shell 40 (c.2, lines 34-36; Fig.2).

Regarding claims 5, 10 and 15, the body or core in Clark comprises electrically insulating material such as phenolic thermosetting resin (c.2, lines 12-13).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 571-272-2029. The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Burton S. Mullins
Primary Examiner
Art Unit 2834

bsm
10 November 2004